

LISTING OF THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) An optical adaptor ~~that is~~ detachably installed at the ~~a~~ tip of an endoscope insertion section having a light receiving section at the tip thereof, ~~said the~~ optical adaptor ~~adaptor~~ comprising[[:]] :

an optical system which forms an image in said light receiving section; and

an information device ~~containing at least one of~~ having information for identifying itself the optical adaptor and optical characteristic information including at least an angle of view and coordinates of a center of a screen of the optical adaptor.

2. (Currently Amended) An optical adaptor according to claim [[:]] 23, wherein ~~said the~~ information device is an identification IC chip.

3. (Currently Amended) An endoscope device comprising[[:]]:
an endoscope insertion section having a light receiving section at ~~the a~~ tip thereof;
an optical adaptor that is detachably installed at the tip of ~~said the~~ endoscope insertion section, ~~and the optical adaptor~~ having an optical system which forms an image in ~~said the~~ light receiving section, and an information device ~~containing at least one of~~ having information for identifying itself the optical adaptor and optical characteristic information including at least an angle of view and coordinates of a center of a screen of the optical adaptor; and

a reading section which is ~~installed in the tip of said endoscope insertion section and~~ obtains ~~said the~~ information for identifying the optical adaptor, the angle of view and the coordinates; and

a control unit receiving the information for identifying the optical adaptor, the angle of view and the coordinates from the reading section and using the information for identifying the optical adaptor, the angle of view and the coordinates to calibrate the optical system and the light receiving section.

4. (Currently Amended) An endoscope device according to claim [[3]] 23, wherein reading of ~~said the~~ information from ~~said the~~ optical adaptor to ~~said the~~ reading section is performed by wireless transmission.

5. (Currently Amended) An endoscope device according to claim 4, wherein ~~said the~~ optical adaptor comprises an identification IC chip, ~~said the~~ reading section comprises an antenna, and reading of ~~said the~~ information is performed by ~~said the~~ wireless transmission between ~~said the~~ identification IC chip, and ~~said the~~ antenna.

6. (Currently Amended) An endoscope device according to claim [[3]] 23, wherein ~~said the~~ optical adaptor comprises a joining terminal, ~~said the~~ reading section comprises a joining terminal, and reading of ~~said the~~ information from ~~said the~~ optical adaptor to ~~said the~~ reading section is performed via a connection between the joining terminal of ~~said the~~ optical adaptor and the joining terminal of ~~said the~~ reading section.

7. (Currently Amended) An endoscope device according to claim 6, wherein ~~said the~~ optical adaptor comprises an identification IC chip, and reading of ~~said the~~ information is performed via ~~said the~~ connection between a joining terminal of ~~said the~~ identification IC chip and the joining terminal of ~~said the~~ reading section.

8. (Currently Amended) An endoscope device according to claim [[3]] 23, wherein ~~said the~~ optical adaptor comprises a coil, ~~said the~~ reading section comprises a coil, and reading of ~~said the~~ information from ~~said the~~ optical adaptor to ~~said the~~ reading section is performed by reading a resonance frequency between the coil of ~~said the~~ optical adaptor and the coil of ~~said the~~ reading section.

9. (Currently Amended) An endoscope device according to claim [[3]] 23, wherein ~~said the~~ optical adaptor comprises a resistor, and reading of ~~said the~~ information from

said the optical adaptor to said the reading section is performed by reading electrical resistivity of said the resistor.

10. (Currently Amended) An endoscope device according to claim [[3]] 23, wherein reading of said the information from said the optical adaptor to said the reading section is performed by reading a concave or convex shape formed in said the optical adaptor.

11. (Currently Amended) An endoscope device according to claim [[3]] 23, wherein said the optical adaptor comprises a magnetic material, and reading of said the information from said the optical adaptor to said the reading section is performed by reading a flux level of said the magnetic material.

12. (Currently Amended) An endoscope device according to claim [[3]] 23, wherein said the optical adaptor comprises an information display section, and reading of said the information from said the optical adaptor to said the reading section is performed by reading information of said the information display section.

13. - 22. (Canceled)

23. (New) An endoscope device comprising:
a control unit;
an endoscope insertion section having a tip and a light receiving section at the tip;
an optical adaptor which is detachably installed at the tip of the endoscope insertion section, the optical adaptor having an optical system which forms an image in the light receiving section and an information device containing at least one information of an information for identifying itself and an optical characteristic information; and
a reading section which reads the at least one information from the optical adaptor, wherein the at least one information is stored in a memory of the control unit and applied to a measurement process without being read by the reading section.

24. (New) An endoscope device according to claim 23, wherein the information device includes an information for identifying the optical adaptor and optical characteristic information including at least an angle of view and coordinates of a center of a screen of the optical adapter.

25. (New) An endoscope device according to claim 24, wherein the control unit receives the information for identifying the optical adaptor and uses the information for identifying the optical adaptor for a calibration process.

26. (New) An endoscope device according to claim 25, wherein the control unit is operable to calibrate the optical system and the light receiving section as part of the calibration process, to generate a measurement environment data containing an information after the calibration process and to store the measurement environment data in the memory.

27. (New) An endoscope device according to claim 26, wherein the control unit uses the measurement environment data stored in the memory for a measuring process once the calibration process is completed.

28. (New) A stereo measurement method using an endoscope device, the method comprising the steps of:

- reading at least an identification information and an optical data stored in an identification device;

- reading an information related to a relative position between a charge coupled device and an observation optical system from an optical adaptor when the optical adaptor is mounted on a tip of an endoscope insertion section;

- obtaining a positional error between the charge coupled device and the observation optical system using a relative position information and the information related to the relative position between the charge coupled device and the observation optical system;

- correcting the optical data using the positional error;

performing coordinate transformation of a measurement image based on the optical data after the correction; and

obtaining three positional coordinates of an arbitrary point by matching images obtained by coordinate transformation.